

Remarks

The Office Action dated October 20, 2008 has been carefully considered. Claims 21-22 are amended without addition of new matter. Reconsideration of the current claims is respectfully requested.

Claim Rejections – 35 USC § 112

In Paragraph 2 of the Office Action, claim 21 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 21 was rejected for the inclusion of a term within parentheses. Claim 21 has been amended to moot this rejection. Withdrawal of this claim rejection is respectfully requested.

Claim Rejections – 35 USC § 102

In Paragraph 4 of the Office Action, claims 12-19 and 23-30 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 4,582,138 (Balzer hereinafter).

It is set forth in ¶4 of the Office Action that

- Balzer teaches emulsifiers and tensides, carboxymethylated oxethylates for oil recovery of formula (I) in claim 12 and 21;
- Balzer teaches the emulsion comprising an oil phase, an aqueous phase, and a carboxymethylated oxethylate as the emulsifier;
- Balzer teaches the crude oil of the oil phase consists of parafinic hydrocarbons;
- Balzer teaches that the emulsifier concentration is 0.2-15%; and
- Balzer teaches the volume ratio of organic phase to aqueous in the emulsion is 3:1 to 1:10.

Reconsideration of this rejection is respectfully requested in view of the following comments.

The current claims are directed to drilling fluids comprising ether carboxylic acids and deal with the use of ether carboxylic acids according to formula (I) in claims 12 and 21 in drilling fluids. In addition, the current claims may include additives for well servicing compositions comprising ether carboxylic acids as set forth in claim 21.

The only purpose of such drilling fluids is to facilitate the generation of sinking wells in solid materials and to protect, e.g. the drill bit boring a hole in solids. Balzer, on the other hand, pertains to a quite different technology directed to oil recovery processes by tenside and/or emulsion flooding (Balzer, column 1, lines 19-20) using carboxymethylated oxethylates. Balzer further discloses that these tensides have a strong oil-mobilizing effect and are very well suited for use in oil displacement in salinity deposit systems (Balzer, column 2, lines 41-49). In addition, Balzer discloses that the use of the carboxymethylated oxethylates as tensides shows an oil-mobilizing effect (Balzer column 6, lines 5-7).

Contrary to the tenside-containing liquids of Balzer, which come into operation once the oil bearing cavity in the rock formation has been detected, the claims of the present invention are directed to drilling fluids which are for making boreholes in solid bodies and the like.

Therefore, Balzer does not teach the invention as claimed in the instant claims. Withdrawal of the rejection of claims 12-19 and 23-30 under 35 U.S.C. 102(b) as being anticipated by Balzer is respectfully requested.

Claim Rejections – 35 USC § 103

In Paragraph 7 of the Office Action, claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Balzer in view of US Patent 5,869,434 (Mueller hereinafter).

Reconsideration of this rejection is respectfully requested in view of the following comments.

Mueller discloses that the use of ester oils of triglycerides cannot be put into practice for the particularly important field of drilling fluids because the oils lead to uncontrollable changes in the fluidity of the without emulsions, resulting in a complete thickening in a very short time (Mueller, column 2, lines 52-61). For this reason, Mueller tries to substitute oil by using linear hydrocarbons, olefinically unsaturated in the alpha-position, with flashpoints of at least 80°C (Mueller, column 4, lines 46-51).

In column 4, line 41, alpha-hexadecene is mentioned, which is an alpha olefin having 16 C atoms. In the Examples, a linear alpha olefin of 18 C atoms is disclosed, which is named as Shop C-18, a product of Shell (Mueller, column 11, lines 10-12). The acronym “Shop” stands for “shell higher olefin process” which is a chemical process for the production of linear alpha olefins via ethane oligomerization and olefin metathesis invented and exploited by Royal Dutch Shell.

From the above it can be concluded that Mueller does not teach oil based invert drilling fluids but teaches away from using oils, including free fatty acids, in connection with drilling fluids. Balzer also discloses that the use of oils has detrimental effects in connection with oil recovery processes (Balzer, column 3, lines 42-51).

Therefore, the combination of Balzer and Mueller does not lead to the invention as claimed in claims 20-22 but instead, teaches away the claims of the present invention. Withdrawal of the rejection of claims 20-22 under 35 U.S.C. 103(a) as being unpatentable over Balzer in view of Mueller is respectfully requested.

Conclusion

In view of the amendments and remarks presented herein, Applicants submit that the present application is in condition for allowance, and such action is respectfully requested. If, however, any issues remain unresolved, the Examiner is invited to telephone Applicants' counsel at the number provided below.

Respectfully submitted,

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